

WORK IT ACROSS AND WORK IT UP

An Example of Planning Instructional Targets across Grade Levels for Different Symbolic Levels

Learning Progression: Earth & Space Science: Students will develop an understanding of the Earth's dynamics.

Standard: Understand the Earth's materials and processes.

Grade Level		Differentiation of Instruction				
3rd - 5th Grade	On Grade Level Expectation (Not adapted)	Abstract Symbolic	Concrete Symbolic	Presymbolic		
Teaching Activity	Identify & describe materials that the Earth is composed of (solid rocks, soil, water, gases).	Given Earth materials & non materials, identify each material that belongs to the Earth and label.	Given Earth materials & non materials, identify each material that belongs to the Earth and label	Given an Earth material vs. non example. Identify the material when asked to find the "rock", "water", and "soil".		
How Student Shows Mastery	List materials, and answer comprehension questions each material.	Label materials and write 1 sentence about each material. Use computer, peer scribe, or independently.	Identification of at least 2 materials from a choice of picture symbols (example vs. non examples). Fill in the blank with the picture symbol appropriate, for each sentence (e.g., The Earth's ____ is wet. <i>water</i>)	Select the correct answer (can use AT, eyegaze, pointing response).		

Grade Level		Differentiation of Instruction				
6th - 8th Grade	On Grade Level Expectation (Not adapted)	Abstract Symbolic	Concrete Symbolic	Presymbolic		
Teaching Activity	Demonstrate an understanding of the Earth's Lithosphere.	Using a model of the Earth, identify the lithosphere. Create model of Earth's Lithosphere using graham crackers, frosting, and	Using a model of the Earth, identify the lithosphere. Create model of Earth's Lithosphere using graham crackers, frosting, and wax paper.	Using a model of the Earth's lithosphere		

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		wax paper.		
How Student Shows Mastery	Identify what layers of the Earth are part of the lithosphere and the properties that allow for movement.	Point to and name the two layers of the Earth that form the lithosphere (crust and upper mantle). Move plates (graham crackers) to show how plates can move past each other, or into each other.	Point to and label (pic symbols) the two layers of the Earth that form the lithosphere (crust and upper mantle). Move plates (graham crackers) to show how plates can move past each other, or into each other.	Move 2 graham crackers when asked to make the Earth's plates move.

Grade Level		Differentiation of Instruction		
9th and 10th Grade	On Grade Level Expectation (Not adapted)	Abstract Symbolic	Concrete Symbolic	Presymbolic
Teaching Activity	Explain the process of Mountain Building <ul style="list-style-type: none"> • Fault Blocking • Folding 	Identify example of fault blocking and folding in mt. building from pictures.	Create a mountain with clay, using the process of fault blocking or folding.	Using clay, set clay mounds up for folding to occur. Ask students to "Build a Mountain by folding"
How Student Shows Mastery	Correct answers in oral assessment.	Label pictures with mountain building science term.	Match picture symbol of mountain to clay mountain.	Push the mountains away from body to mountain build.